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PATENT APPLICATION

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GROUP 1600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
INDRA PRAKASH) Examiner: Paul A. Zucker
Application No.: 09/859,439) Group Art Unit: 1621
Filed: May 18, 2001)
For: SYNTHESIS OF N-[N-(3,)
3-DIMETHYLBUTYL)-L-)
 α -ASPARTYL]-L-)
PHENYLALANINE 1-)
METHYL ESTER USING)
OXAZOLIDINONE)
DERIVATIVES)

Commissioner for Patents
Washington D.C. 20231

DECLARATION UNDER 37 C.F.R. § 1.132
OF DR. INDRA PRAKASH

INDRA PRAKASH, declares and says that:

I. I have been employed by the NutraSweet Company for the past 11 years and currently hold the title of "Director of Process Chemistry". I was previously employed by Aldrich Chemical Company, Milwaukee, Wisconsin from April 1987 until April 1992 as a Principal Investigator/Scientist in the Research and Development department.

II. In 1975, I received a B.S. in Chemistry from Mecrut University, India and a Ph.D. in chemistry from Kurukshetra University, India in 1982.

III. I am the inventor of the subject matter described and claimed in the above-identified application.

IV. I am familiar with the prosecution history of the present application. I have carefully reviewed the Examiner's position as set forth in the Office Action mailed July 29, 2002, wherein claims 1, 2, 4-10, 12, 14 and 16-20 remain rejected over Burger ("Regiospecific Reactions with ω -carboxy- α -amino acids -- A Simple Synthesis of Aspartame", *Chemmiker Zeitlung*, 1990, 114(7-8), pp. 249-251) and Claude (U.S. Patent No. 5,510,508). In my opinion, the presently claimed method of synthesizing neotame is not rendered obvious by these references.


5. Aspartame and neotame are related compounds. However, there are important structural, physical and chemical differences between them. One of ordinary skill in the art would not predict, despite seeming structural similarities, that chemical processes applicable to aspartame would be equally applicable to neotame. In the same way, one of ordinary skill in the art would not predict that the compounds could be synthesized by the same methods. In my opinion, because of the differences between the starting materials for aspartame and neotame, i.e., L-aspartic acid and N-(3,3-dimethyl)-L-aspartic acid, respectively, (most notably the bulky neohexyl group present in the starting material for neotame), one of ordinary skill in this art would have no reasonable expectation of synthesizing neotame based on results obtained in the synthesis of aspartame.

6. As an example, aspartame can be synthesized via oxazolidinones using both ketones and aldehydes. On the other hand, neotame cannot be synthesized in this manner using aldehydes; only ketones will work (as is presently claimed). The

substitution of N-(3,3-dimethylbutyl)-L-aspartic acid for L-aspartic acid in a reaction scheme using aldehydes to produce oxazolidinones in the ultimate synthesis of a disaccharide is not a "trivial" modification as noted by the Examiner. The fact that the synthesis using aldehydes works for aspartame but not for neotame, in my opinion, evidences the lack of reasonable expectation of success that one of ordinary skill in this art would have when attempting to synthesize neotame using a synthetic route successful for aspartame.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Subscribed this 28th day of April, 2003.


Dr. Indra Prakash

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